

09/111,731 (Shiraiwa et al.)



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/111,731 07/08/98 SHIRAIWA

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EXAMINER

005514 WM02/1205
FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK NY 10112

GOOD JOHNSON, M	
ART UNIT	PAPER NUMBER

10

2672
DATE MAILED:

12/05/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

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Office Action Summary

Application No.
09/111,731

Applicant(s)

Shiraiwa et al.

Examiner
Motilewa Good-Johnson

Group Art Unit
2672



☒ Responsive to communication(s) filed on Sep 19, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-17 is/are pending in the application

Of the above, claim(s) none is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-17 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

1. This action is responsive to communications: application, filed on 07/08/1998; IDS paper #5, filed on 05/03/1999; Amendment A, filed on 09/19/2000.

This action is made final.

2. Claims 1-17 are pending in the case. Claims 1, 8-10 and 16-17 are independent claims. Claims 1, 8-10 and 16-17 have been amended.

3. The present title of the application is "Image Processing Apparatus Method and Recording Medium Therefor" (as originally filed).

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

5. Claims 1-6, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Penna, U.S. Patent Number 5,905,503, "Rendering an Image Using Lookup Tables Giving Illumination Values for each Light Source by Direction and Distance", class 345/426, 05/18/1999.

As per independent claim 1, **"an image processing method for converting data dependent on a first illuminating light into data dependent on a second illuminating light, comprising the steps of: storing conversion data for plural illuminating lights . . . ; Penna discloses in col. 1, lines 64-67; generating data indicating the proportion of synthesis of said plural illuminating lights . . . ; Penna discloses in col. 6, lines 8-11; generating a conversion condition from the stored plural conversion data according to the data indicating the proportion of synthesis; Penna discloses in col. 5, lines 1-3; and converting data dependent on first illuminating light into data dependent on said second illuminating light, based on said conversion data . . ."** Penna discloses in col. 2, lines 34-45.

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With respect to dependent claim 2, “... **plural illuminating lights are different in color rendering property.**” Penna discloses in col. 5, lines 4-11.

With respect to dependent claim 3, “... **data indicating the proportions of plural syntheses are stored in advance according to the kinds of illuminating light.**” Penna discloses in col. 3, lines 38-44, 51-54.

With respect to dependent claim 4, “... **the kind of said second illuminating light is designated by the user and said data indicating the proportion of synthesis are selected according to said designated kind of the second illuminating light.**” Penna discloses in col. 4, lines 25-37.

With respect to dependent claim 5, “... **data indicating the proportion of synthesis are generated according to a manual instruction of the user.**” Penna discloses in col. 4, lines 25-30.

With respect to dependent claim 6, “... **data indicating the proportion of synthesis are generated according to the output from a sensor for measuring the illuminating light.**” Penna discloses in col. 8, lines 66-67 and in col. 9, lines 1-10.

As per independent claims 8 and 9 respectively, “**an image processing apparatus for converting data ...**” and “**a computer readable recording medium storing a program ...**”, they are rejected based upon similar rational as above independent claim 1, “**an image processing method for converting data ...**”

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7, 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Penna, U.S. Patent Number 5,905,503, "Rendering an Image Using Lookup Tables Giving Illumination Values for each Light Source by Direction and Distance", class 345/426, 05/18/1999.

With respect to dependent claim 7, **"... said conversion data are matrix data."**

However, it is noted that Penna fails to disclose matrix data for said conversion. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement said matrix data for said conversion instead of said lookup tables disclosed in Penna to reduce the required bits per value for a wider range of values.

As per independent claim 10, **"an image processing method for converting inputting data ... comprising steps of: setting an ambient lighting characteristic coefficient according to manual instruction; Penna discloses in col. 1, lines 64-67; generating a conversion condition for the ambient light from conversion data corresponding to plural light sources having different color rendering properties ... ; Penna discloses in col. 2, lines**

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1-4; and performing an ambient light correction for inputting data . . .” Penna discloses in col. 2, lines 5-15.

However, it is noted that Penna fails to disclose ambient lighting characteristics. It would have been obvious to one of ordinary skill in the art at the time of the invention to implement conversion conditions for ambient lighting characters in that ambient light is the simplest kind of light source to model in that is assumed to produce constant illumination on all surfaces, regardless of position or orientation.

With respect to dependent claim 11, “. . . correction for the ambient lighting is achieved by correction of color rendering based on said ambient lighting characteristic coefficient.” Penna discloses in col. 3, lines 4-6.

With respect to dependent claim 12, “. . . correction of color rendering is achieved by a weighted process on said conversion data corresponding to the plural light sources having different color rendering properties . . .” However, it is noted that Penna fails to disclose a weighted process on conversion data. Penna discloses in col. 5, lines 4-11, determining color data for pixels by various know cited prior art. It would have been obvious to one of ordinary skill in the art to implement a weighted process on conversion data to provide for the correction of color data based upon the change in the illumination intensity.

With respect to dependent claim 13, “. . . matrix coefficients relating to said correction for the ambient lighting are calculated according to said ambient lighting characteristic coefficient.” However, it is noted that Penna fails to disclose matrix data for said conversion. It

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would have been obvious to one of ordinary skill in the art at the time of the invention to implement said matrix data for said conversion instead of said lookup tables disclosed in Penna to reduce the required bits per value for a wider range of values.

With respect to dependent claim 14, “. . . **calculated matrix coefficients are registered according to manual instruction.**” Penna discloses in col. 4, lines 25-30.

With respect to dependent claim 15, “. . . **setting the color temperature and the luminance of the ambient light; wherein said correction for the ambient light is achieved by a color adapted conversion according to said color temperature and luminance.**” However, it is noted that Penna fails to disclose a color temperature. Penna discloses in col. 5, lines 4-11, determining color data for pixels by various know cited prior art. It would have been obvious to one of ordinary skill in the art to implement color temperature on conversion data to provide for the accurate correction of color data based upon the change in the illumination intensity.

As per independent claims 16 and 17 respectively, “**an image processing apparatus comprising: setting means . . .**” and “**a computer readable recording medium storing a program . . .**”, they are rejected based upon similar rational as above independent claim 10, “**an image processing method . . .**”

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Response to Amendment

8. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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10. Any response to this action should be mailed to:

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703)-308-9051 (**formal** communications intended for entry),

Or:

(703)-305-9724 (**informal** communications labeled **PROPOSED** or **DRAFT**).

Hand-delivered responses should be brought to:

Sixth Floor Receptionist, Crystal Park II, 2121 Crystal Drive, Arlington, VA.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa Good-Johnson, whose telephone number is (703)-305-3939 and can normally be reached Mondays-Fridays from 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi, can be reached at (703)-305-4713.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703)-305-3900.

Motilewa Good-Johnson
Patent Examiner
Art Unit 2672



MATTHEW LUU
PRIMARY EXAMINER